

U.S.S.N. 09/731,412

Filed: December 6, 2000

AMENDMENT UNDER 37 C.F.R. § 1.312

In the Claims

Claims 1-19. (Canceled).

20. (Currently Amended) A method for administering a therapeutic or prophylactic agent comprising administering to a patient a matrix for delivery of a therapeutic or prophylactic agent,

wherein the matrix is formed of a biocompatible polymer having incorporated therein an therapeutic or prophylactic agent and an effective amount of a hydrophobic or amphiphilic compound to modify the diffusion of water into the matrix and the release of the therapeutic or prophylactic agent from the matrix, wherein the drug is released over shorter periods of time as compared to release from matrices not incorporating the hydrophobic or amphiphilic compound,

the matrix being formed by a method comprising emulsifying a polymer solution, the therapeutic or prophylactic agent, hydrophobic or amphiphilic compound, and a pore forming agent, then removing solvent and pore forming agent to produce a matrix.

21. (Previously presented) The method of claim 20 wherein the matrix is in the form of microparticles.

22. (Previously presented) The method of claim 20 wherein the hydrophobic or amphiphilic compound is incorporated into the matrix at a ratio of between 0.01 and 60 by weight of hydrophobic compound to weight of polymer.

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23. (Previously presented) The method of claim 20 wherein the hydrophobic or amphiphilic compound is a lipid incorporated into the matrix at a ratio of between 0.01 and 30 (weight lipid/weight matrix material).

24. (Previously presented) The method of claim 23 wherein the lipid is selected from the group consisting of fatty acids and derivatives, mono-, di and triglycerides, phospholipids, sphingolipids, cholesterol and steroid derivatives, oils, vitamins and terpenes.

25. (Previously presented) The method of claim 24 wherein the lipid is a phospholipid selected from the group consisting of phosphatidic acids, phosphatidyl cholines with both saturated and unsaturated lipids, phosphatidyl ethanolamines, phosphatidylglycerols, phosphatidylserines, phosphatidylinositols, lysophosphatidyl derivatives, cardiolipin, and β -acyl-y-alkyl phospholipids.

26. (Currently amended) The method of claim 25 wherein the phospholipid is selected from the group consisting of dioleoylphosphatidylcholine, dimyristoylphosphatidylcholine, dipentadecanoylphosphatidylcholine, dilauroylphosphatidylcholine, dipalmitoylphosphatidylcholine, distearoylphosphatidylcholine, diarachidoylphosphatidylcholine, dibehenoylphosphatidylcholine, ditricosanoylphosphatidylcholine, dilignoceroylphatidylcholine; and phosphatidylethanolamines.

27. (Previously presented) The method of claim 20 wherein the agent is a therapeutic agent.

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28. (Previously presented) The method of claim 20 wherein the matrix is formed of a bioadhesive polymer.

29. (Previously presented) The method of claim 20 wherein the matrix is formed of a polymer selected from the group consisting of poly(hydroxy acids), polyanhydrides, polyorthoesters, polyamides, polycarbonates, polyalkylenes, polyalkylene glycols, polyalkylene oxides, polyalkylene terephthalates, polyvinyl alcohols, polyvinyl ethers, polyvinyl esters, polyvinyl halides, polyvinylpyrrolidone, polysiloxanes, poly(vinyl alcohols), poly(vinyl acetate), polystyrene, polyurethanes and co-polymers thereof, synthetic celluloses, polyacrylic acids, poly(butyric acid), poly(valeric acid), and poly(lactide-co-caprolactone), ethylene vinyl acetate, copolymers and blends thereof.

30. (Previously presented) The method of claim 20 wherein the matrix is formed of a protein or polysaccharide.

31. (Previously presented) The method of claim 20 wherein the matrix is in a pharmaceutically acceptable carrier for topical application or application to a mucosal surface.

32. (Previously presented) The method of claim 20 wherein the matrix is in a pharmaceutically acceptable carrier for injection.

33. (Previously presented) The method of claim 20 wherein the matrix is formulated for administration rectally or vaginally.

34. (Previously presented) The method of claim 21 wherein the microparticles are formulated for pulmonary administration.